

Extra Problems

MATH 101 Section 205 (MacLean)

Friday, January 31, 2007

1. Find the volume of the solid generated by revolving around the line $x = -\pi/4$ the area bounded by $x = -\pi/4$, the two curves $y = \cos(x)$ and $y = \sin(x)$, and by $x = 3\pi/4$.
2. Find the value of $a > 0$ such that when the area bounded by the curve $y = 1 + \sqrt{x}e^{x^2}$, the line $y = 1$, and the line $x = a$ is rotated about the line $y = 1$, a volume of 2π is generated.